

# **Exploring Attitudes and Awareness of College Women toward Egg Donation**

Presented in Partial Fulfillment of the Requirements for the Degree Bachelor of Science  
in Social Work in the Honor's College of Social Work of The Ohio State University

Thesis

By

Stacey Paige Bernsen

Undergraduate Program in Social Work

The Ohio State University

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Thesis Committee

Keith Anderson and Sharvari Karandikar – Chheda, co-advisors

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## **Abstract**

This research aims to explore the attitudes and awareness of egg donation among college women at The Ohio State University. Literature is limited on research specifically focusing on attitudes and awareness among undergraduate college women, who are the target population for egg donation clinics. The research design for this study utilized a quantitative, cross-sectional survey design. The selection of the variables was based on the proposed conceptual framework that included biosocial factors that are likely to influence a participant's attitude and awareness of egg donation. An online survey was utilized to examine the aforementioned objectives. Primary data was collected from 90 undergraduate female students (N=90) at The Ohio State University using a random sample with no replacement. Respondents were members of student organizations. The organizations were selected randomly and all members in the organization were requested to participate. The results display that the majority had favorable attitudes toward egg donation. Findings indicate particular attention to the role that counselors and social workers should play in assisting and supporting women who are being recruited to donate eggs.

## **Dedication**

I dedicate this thesis to my mother, Randi Bernsen, and my father, Mark Bernsen, whose endless love, support, and compassion have given me the strength to accomplish *anything*.

## **ACKNOWLEDGEMENTS**

This thesis would not have been possible without the support of numerous individuals. First and foremost, I want to thank two exceptional people, my advisors Sharvari Karandikar Chheda and Keith Anderson. You both have given me so much guidance to complete this thesis, while still having so much patience with me throughout the process. I could not have completed this thesis without both of your support and I truly thank you from the bottom of my heart. Second of all, I would like to thank Jennie Babcock, Andrea Severson, and the College of Social Work at The Ohio State University for their never-ending encouragement throughout the years. Lastly, I want to thank those who participated in the survey, who by doing so, helped to expand knowledge and research on such an important topic.

### **Vita**

May 2003.....Bornblum Solomon Schechter Day School  
May 2007.....Ridgeway High School, Memphis, TN  
June 2011.....The Ohio State University, Columbus, OH

### **Fields of Study**

*Major Field: Social Work*

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## **Chapter 1: Introduction**

Current advances in reproductive technology have significantly expanded the treatment options available to the estimated 17% of couples who are unable to procreate (Winter & Daniluk, 2004). Over the last couple of decades, In Vitro Fertilization (IVF) techniques have played a more widespread role in the range of available fertility treatments in the United States (Kenney & McGowan, 2008). Through IVF, women are able to donate eggs to an infertile woman who cannot produce viable eggs (Winter & Daniluk 2004). In the process of IVF, the donor's eggs are fertilized with a male's sperm and can then be gestated in the uterus of the actual mother, or in some cases, a surrogate who is willing to conceive on behalf of the couple (Winter & Daniluk, 2004). Several thousand children are born by conception through egg donation every year (Kenney & McGowan, 2008). Egg donation has, however, generated worldwide discussion involving its ethical, social, and psychological issues and risks (Svanberg, 2003).

Researchers have compiled extensive data on the motivations and attitudes of donors, both before and after the egg retrieval process. Researchers, however, have not thoroughly researched the attitudes and the awareness of college women on egg donation. The present research will explore the attitudes towards egg donation and the awareness of egg donation among undergraduate college women from The Ohio State University. Understanding undergraduate college women's positive or negative attitudes will yield insight into an under-researched population's view of egg donation. Understanding awareness will provide insight into the level



of knowledge on the topic. This research will also attempt to explore the bioethical, social, and emotional apprehensions in society regarding egg donation.

“In the United States, it is common for egg donors to be recruited by clinics, often through advertising media, and offered a financial incentive for donating eggs to couples seeking fertility treatment” (Kenney & McGowan, 2008, p.1). College students have been especially targeted in the recruitment by clinics through advertising media. Researchers have indicated that the financial compensation may be especially valuable to young donors who are college students, because they may have more limited financial resources and higher debt (Kenney & McGowan, 2008). The coercive nature of offering money to poor college students has raised uncertainty as to whether or not the recruitment process is ethical. Potentially, students may be so desperate for money that they begin the egg donation process without formulating a rational decision.

Although monetary compensation may seem unethical, women who donate eggs risk a great physical investment in the process of donation. Women are required to undergo a series of daily hormone injections in order to suppress their immune system (Winter & Daniluk, 2004). During the stimulation phase of treatment, there is a risk of hyperstimulation, and in the final phase of treatment, “egg retrieval by laparoscopy or vaginal ultrasound is often painful.” (Winter & Daniluk, 2004). In addition to the physical effects, the egg donation process can be emotionally rigorous. Research has discussed that women report psychological effects, especially in experiencing continued curiosity and stress about the outcome of the procedure and any children that have resulted from the process (Kenney, 2008). Given these known risks, one might

question why women donate eggs, whether they are knowledgeable about the potential risks, and whether they are emotionally and psychologically fit to proceed with the process.

Researching the specific population of undergraduate college students will aid in shaping the understanding of this specific population's attitudes and awareness on egg donation. In addition, since college women are an especially targeted population, it is imperative to conclude that college women are being recruited ethically and ensure that college women are thoroughly informed of all risks associated with the egg donation process.

This research will explore the variables associated with awareness and the negative or positive attitudes of college women regarding egg donation. At The Ohio State University, undergraduate women are targeted as agencies advertise in the college newspaper. It is therefore important to conduct research specifically on The Ohio State University students. Also, these undergraduate college women are from diverse backgrounds, ages, and ethnicities - data collection on campus may generate important findings.

## **Chapter 2: Literature Review**

The literature review examines the attitudes and awareness of egg donation over the years, egg donation among college students, awareness of egg donations, and ethical issues of egg donation and its implication for social work practice. The literature reviews past studies on attitudes and awareness on egg donation and more specifically diverse gaps in literature on college students and egg donation. The literature also discusses various demographic characteristics of egg donors that are important in research.

### **2.1 Summary of the attitudes of egg donation over the years**

Population studies of attitudes toward egg donation to create new families have changed over time. Attitudes toward egg donation are connected to the perceived importance of what compromises motherhood and fatherhood (Purewal & van den Akker, 2005). “These attitudes tend to be grounded in cultural normative beliefs, which tend to be reinforced by many religions” (Purewal & van den Akker, 2005, p. 511). In 1988, a study was conducted regarding college student’s acceptance of adoption, as well as numerous fertilization techniques (Dunn, Ryan, & O’Brien, 1988). The study found that respondents were hesitant to accept some of the new reproductive technologies with third party involvement (Dunn, Ryan, & O’Brien, 1988). This may have been due to the unfamiliarity of IVF treatments and the associated social stigma.

In 1992, a cross-sectional study of married couples and their attitudes of 11 infertility interventions were conducted (Abbey, Andrews, & Halman, 1992). The study reported that infertile couples preferred interventions with a full genetic link (Abbey, Andrews, & Halman,

1992). In addition, the study displayed that IVF treatments had lower acceptability than other interventions. The researcher hypothesized that this was due to the newness of the intervention and the high cost. The study also indicated that infertile couples were more favorable toward all interventions, except for adoption (Abbey, Andrews, & Halman, 1992).

At the turn of the century, attitudes toward egg donation have become less restricted (Purewal & van den Akker, 2005). Purewal and van den Akker conducted a study using a sample of women from different ethnic backgrounds in the UK. They utilized a questionnaire that included an “Attitudes toward egg donation scale” created by Bergh, Lampic, Lundkvist, and Svanberg, also used in this research. The study found that nearly half of the women rated themselves as possible donors, and over half of the participants indicated that they would be willing to donate their eggs. This study discusses the possibility of the increase in individual’s positive attitude toward egg donation and its potential relation to the newfound awareness and belief that egg donation contributes to the significance of motherhood by assisting others who are denied the ability to procreate (Purewal & van den Akker, 2005). Although there has been a slow public acceptance of third party conception, egg donation has nevertheless become a popular method of treatment for infertility (Purewal & van den Akker, 2005).

## **2.2 Variables associated with attitude of egg donation among non-donors**

Purewal and van den Akker examined 21 studies that describe the general population attitudes toward egg donation. Overall, the studies that have assessed women and men from the general population’s attitudes toward egg donation have largely observed positive attitudes toward egg

donation, particularly among the fertile populations (Purewal, van den Akker, 2009a). The systemic review included research indicating that there are significant gender, fertility status, and ethnic/religious differences between participants in their attitudes toward egg donation (van den Akker & Purewal, 2009).

A comparative study conducted in 1991 found that infertile individuals find egg donation more acceptable than individuals who are fertile (Bish, Bolton, Cook, Golombok & Rust 1991). The study compared four groups of subjects: patients receiving egg donation, patients receiving sperm donation, potential egg donors, and the general population. The study found that, generally, the participants were in favor of egg donation as treatment for infertility; however, there was a significant difference in the attitudes of women who were fertile and infertile (Bish, Bolton, Cook, Golombok & Rust 1991). Thus, fertility status potentially becomes an important variable in egg donation research.

A questionnaire-based study assessed the attitudes of both fertile and infertile men as well as egg donors and recipients towards the use of donated eggs for treatment (Hamilton, Kazem, Templeton & Thompson, 1995). The study indicated that support for egg donation was greater if the individuals were aware that their infertility could only be treated with the donated eggs (Hamilton, Kazem, Templeton & Thompson, 1995). In addition, the research indicated that 89% of fertile women and 95% of infertile women approved the use of eggs for research (Hamilton, Kazem, Templeton & Thompson, 1995). This study displayed that when a choice has to be made, pragmatic factors may play a role in the decision-making processes (van den Akker, 2006).

Consequently, a cross-sectional, cultural study done in 1994 found the opposite. The study surveyed fertile and infertile Iranian and British women to explore their attitudes to the issues of egg and sperm donation (Anderson, Balouch, Fallone & Furnham, 1994). The extent to which women in both cultural groups consider God's will as responsible for infertility was also surveyed (Anderson, Balouch, Fallone & Furnham, 1994). The study found that Iranian women believe that God's will is more associated with infertility than British women (Anderson, Balouch, Fallone & Furnham, 1994). The study also found that the attitudes of fertile women were significantly more positive toward egg donation than infertile women (Anderson, Balouch, Fallone & Furnham, 1994). This research displays that spirituality and religious affiliation are important variables in egg donation research.

A questionnaire-based study conducted in Sweden on egg donation was completed two months before the decision to introduce egg donation was made in Sweden. The study mailed out surveys to a population of 1000 men and 1000 women who were thought to represent the population of potential egg donors and recipients. The study found that respondents with an experience of infertility were significantly more negative towards having an age limit of women donating eggs compared to respondents without infertility experience (Bergh, Lampic, Lundkvist & Svanberg, 2003). The study also found that respondents with no children were significantly more in favor of having an age limit than respondents with children of their own (Bergh, Lampic, Lundkvist & Svanberg, 2003). Additionally, the researchers found that younger women may have more naive attitudes toward egg donation than women who are older or infertile (Bergh, Lampic, Lundkvist & Svanberg, 2003).

Previous research has indicated that ethnic differences in attitudes toward egg donation are present; however, Purewal and van den Akker found that a majority of the results were complex and contradictory (2009b). For example, a study completed in 2006 found British South Asian women were significantly less likely to agree to donate their eggs than Caucasian British women (Purewal, 2006). Another study found that British South Asians considered egg donation to be socially unacceptable (Culley, Hudson, Johnson, Katbamna & Rapport, 2005).

In 2002, a study was completed in Greece on individual's attitudes of egg donation. The researcher conducted personal interviews with 365 men and women of a reproductive age. The results reported a significant link between religiosity and reluctance to donate among Greek populations (Chliaoutakis, 2002). In comparison, studies from some Islamic countries have also found that men and women share positive attitudes toward egg donation, despite the fact that some Muslims believe third party conception is forbidden by Islamic law. "It is possible that the pursuit of parenthood or motherhood by any means available overrides any religious or societal objections" (Purewal & van den Akker, 2009a). The researchers found that women reporting a willingness to donate were more likely to endorse non-conventional perceptions of parenthood, which coincided with their positive beliefs about parenthood (O.B.A. van den Akker & Purewal, 2009).

Through integrating the findings regarding the attitudes of egg donation, the general attitudes toward egg donation are positive. Studies have also revealed that a significant proportion of women from the general population were willing to donate their eggs as identifiable donors (Purewal & van den Akker, 2009a).

### **2.3 Awareness of Egg Donation and Egg Donation among College Students**

Awareness and knowledge of egg donation has not been widely researched, especially in the United States. A study done on the motivation, attitudes and experience of donation in 1998 contacted eighty-four women from a list supplied by the assisted conception unit. Women were asked, “From what source did you first hear about donating eggs?” Researcher’s results concluded that 62% of women had first heard about egg donation through the media (mainly newspaper articles), 28% had heard from family and friends, and only 8% had heard from a medical source (Duqueno, Fielding, Handley, Lui, & Weaver, 1998).

In comparison, a study targeting donors on their retrospective evaluations of their motivations, expectations, and experiences during their donation cycle, found that the majority of women donors, 70.5%, indicated that they first learned about egg donation through advertising or articles/reports in print. Of these women, a quarter of the donor women noted that their first source of information on egg donation was a college or university newspaper (Kenney & McGowan, 2008).

As the two previous examples display, awareness of egg donation by women is mainly through advertising media. College women are especially targeted through advertising media on college campuses, as recipients are increasingly interested in their specific donor having a college degree (Tuller, 2010). As more college women are recruited through advertising media, research has proposed a problem in that younger women may have more naïve, or simplistic attitudes toward egg donation than women who are older (Bergh, Lampic, Lundkvist & Svanberg, 2003). In addition, researchers have indicated that the financial compensation may be especially valuable



to young donors who are college students, because they may have more limited financial resources and higher debt (Kenney & McGowan, 2008). The previous findings indicate the need for scrutiny regarding the ethical issues of monetary compensation toward college women donating eggs. Alarming, even though studies on awareness talk of sources of information, they do not openly discuss respondent's awareness about the risks and benefits, or the procedures, involved in egg donation.

## **2.4 Ethical Issues of Egg Donation and Implication for Social Work Practice**

“In most Western European countries, and in Canada, in contrast to the United States, egg donation has been closely regulated by the state and occurs without remuneration to donors” (Kenney & McGowan, 2008, p.1). In other countries, such as the United Kingdom, egg donation is similar to organ or tissue donation; eggs can only be given with no monetary compensation (Kenney & McGowan, 2008). While some research has displayed that donors in the United States have reported that helping others played a large role in their decision to donate, other research has indicated that the monetary compensation is the primary motivator for donation (Kenney & McGowan, 2008). A recent article in *The Economist* discusses that female donors in the United States are demanding more compensation. The previous information raises the question as to why individuals donate eggs and if they are aware of the effects of egg donation.

In addition, research has indicated that health-care professionals who are recruiting and working with egg donors may morally influence their practice without realizing that they are disregarding ethical or legal boundaries (Winter & Daniluk, 2004). Women who donate should be recruited ethically, and in addition, should be screened thoroughly and informed of every risk possible in

participating in the egg donation process. Research has also specified that donors would benefit from preparation for the emotional feelings they are likely to experience during the egg donation process (Winter & Daniluk, 2004). In addition, research has shown that donors should receive more understanding of the emotional and physical effects of egg donation before beginning the egg donation process (Kenney & McGowan, 2008).

In almost every fertility clinic in the United States, a social worker is employed to screen individuals participating in the egg donation process to ensure that they are emotionally and psychologically stable to continue along the process (Tuller, 2010). Social work values support egg donation in that the process gives women who may not be able to procreate the ability to create a family. Although the family may be non-traditional, egg donation provides an opportunity for single women, infertile women, as well as the GLBT community to create their own definition of family.

Findings give particular attention to the role that counselors and social workers should play in assisting and supporting women who are considering donating eggs. Because egg donation is a relatively new phenomenon, there is no theoretical framework underlying the “psychological assessment and emotional support of egg donors, nor has there been any apparent theory development in this area” (Winter & Daniluk, 2004, p. 490). The role that a counselor or social worker can play is that of “counselor-educator, assessing the donor’s psychological status and coping skills, and addressing the critical issues of informed consent, donor motivation, expectations, and the potential short and long term impact of successful and unsuccessful

donation” (Winter & Daniluk, 2004, p. 490). The researchers suggest that the role of the social worker needs to be taken into account in all stages of the donation process.

In conclusion, the literature review is limited on attitudes and awareness, specifically among college students. Based on existing research and literature review, this research proposes to examine the following study: An exploratory study on the attitudes and awareness of non-donor, undergraduate women at The Ohio State University. In addition, this study will aid in determining which factors contribute to the positive or negative attitudes toward egg donation among undergraduate women at The Ohio State University. This research is hypothesis-generating in relation to which independent variables affect the attitudes and awareness of egg donation among undergraduate college women.

## **Chapter 3: Methodology**

This section will discuss the research design, data collection methods, data analysis, limitations and strengths of the methodology. This section will provide the reader with a thorough concept of how this research was completed.

### **3.1 Research design**

The research design for this study was a quantitative, cross-sectional survey approach to examine the proposed research questions. The purpose of this exploratory study was to gather information on an under-researched population, undergraduate college women, to explore which independent variables may be correlated or have an influence on individual's attitude and awareness of egg donation.

Variables pertaining to biological and social factors affecting attitude and awareness are selected from the systemic review of oocyte donation (2009). The systemic review has indicated numerous variables that are proposed to have influenced individual attitude and awareness of egg donation. The selection of the variables was based on the proposed conceptual framework that included biopsychosocial factors that are likely to influence a participant's attitude and awareness of egg donation. The model proposes that awareness and attitude of egg donation are likely influenced by a set of biological factors (ones gender, age, and fertility status) and social factors (one's religious affiliation). The objective of this research is to study the attitudes and awareness of undergraduate college women at The Ohio State University.

### **3.2 Data Collection**

An online survey was utilized to examine the aforementioned objective. Primary data was collected from undergraduate female students at The Ohio State University. After consent from the Ohio State Institutional Review Board, a letter was sent out by e-mail to President's of undergraduate student organizations asking for undergraduate female member's e-mail addresses. Once the researcher had received the e-mail addresses, the students were sent a briefing letter via e-mail. The e-mail provided a link to the survey on SurveyMonkey.com. The briefing letter described the purpose of the study, the length and time frame of the study, and notified the participants that all participation is voluntary and all responses anonymous. Once the individuals read the briefing letter, they pressed 'yes' or 'no' at the bottom of the e-mail in response to a question inquiring if, with the information given, the individual agreed to participate in the survey. If the participant agreed to take part in the survey, she clicked on the link to the online survey, developed by the researcher, on the website, SurveyMonkey.com. The researcher used SSL Encryption for survey responses.

The minimum population size was 80 female college students from The Ohio State University. Based on analytical techniques, a sample of 80 would provide the researcher with ample power. The research was done using a random sample, with no replacement. The researcher sent out e-mails to 10 undergraduate student organizations at a time from a list of 1,449 possible undergraduate student organizations on The Ohio State University website. The research was completed using the lottery method to randomly select with no replacement 10 undergraduate student organizations. The researcher deactivated the survey after the target sample size was exceeded.

There were two variables of interest in this study, attitudes toward egg donation and awareness of egg donation. The majority of items are ranked on a Likert-scale; however, there were open-ended, close-ended, and contingency questions. Items come from Skoog Svanberg, Sydsjo, Ekholm Selling, and Lampic (2008) and Isikoglul, Senol, Berkkanoglu<sup>1</sup>, Ozgur<sup>1</sup>, Donmez, Stones-Abbasi. The scales from which the questions are derived from have been used in previous research and are found to be valid. Two faculty members from The Ohio State University College of Social Work examined the survey, and they both found the survey to be reliable. Scales have been adapted to the specific population of female undergraduate women.

The survey method involved minimal harm, because respondents' information was anonymous. Each case was assigned a number that was not linked to any identifiable information, and only the investigator and co-investigators had access to the data. In addition, all questionnaires were destroyed following the study's completion.

### **3.3 Data Analysis**

As this was an exploratory study, the data analysis plan was relatively straightforward and basic. The survey collected quantitative data that included a number of nominal, ordinal, and some interval level variables. Descriptive statistics were run on the data using Microsoft Excel. Additional statistics were generated through proprietary data analysis software on SurveyMonkey.com. The results were then organized and presented in graphic and tabular format. As previously mentioned, one open-ended question was also contained in the survey. The resulting qualitative data was analyzed and grouped into categories.

### **3.4 Limitations of the Methodology**

There were several limitations that were associated with this research methodology. First, the study was cross-sectional in design, which does not provide opportunities to look at change over time. In addition, convenience sampling was used which has the potential to introduce sampling bias into the study. It may be the case that only those participants who were most comfortable with egg donation participated in the study. There were also some limitations in terms of the variables included in this study. While gender, fertility status, religious affiliation, and age are all discussed in the systemic review, there are not many other variables associated with attitude and awareness of egg donation. Another limitation of the study concerns external validity. Since the participants are only female undergraduate students from The Ohio State University, the results may not be generalizable to other groups, such as women who are not attending college and women who may be attending religiously affiliated schools. These limitations should be taken into account in interpreting the results from this study.

### **3.5 Strengths of the Methodology**

There are several strengths to the methodology and to the overall approach to this study. First, the study design increased the feasibility of completing the study within the set parameters of time and funding. Second, the study provides a snapshot in time of the attitudes of the day regarding egg donation. Since this study focuses on college-age women, this is important to garner their thoughts at this moment in time given the fact that they are a primary target for egg donation recruitment. Researching the specific population of undergraduate college students will also aid in shaping the understanding of this specific population's attitudes and awareness on egg

donation. In addition, since college women are an especially targeted population, it is imperative to conclude that college women are being recruited ethically and ensure that college women are thoroughly informed of all risks associated with the egg donation process.

Research has also indicated that health-care professionals who are recruiting and working with egg donors may morally influence their practice without realizing that they are disregarding ethical or legal boundaries (Winter & Daniluk, 2004). Women who donate should be recruited ethically, and in addition, should be screened thoroughly and informed of every risk possible in participating in the egg donation process. Research has also specified that donors would benefit from preparation for the emotional feelings they are likely to experience during the egg donation process (Winter & Daniluk, 2004). In addition, research has shown that donors should receive more understanding of the emotional and physical effects of egg donation before beginning the egg donation process (Kenney & McGowan, 2008). Research has displayed the importance of the role of a social worker in the egg donation process and how this role needs to be taken account into all stages of the donation process (Winter & Daniluk, 2004).



## **Chapter 4: Results**

The results from the study are organized into categories in which the items are grouped by similarities. These groupings include demographics, knowledge/awareness of egg donation, attitude toward recruitment through media, personal “exposure”, and attitude toward donation. Results from the qualitative data analysis are also included as a subsection.

### **4.1 Demographic Characteristics**

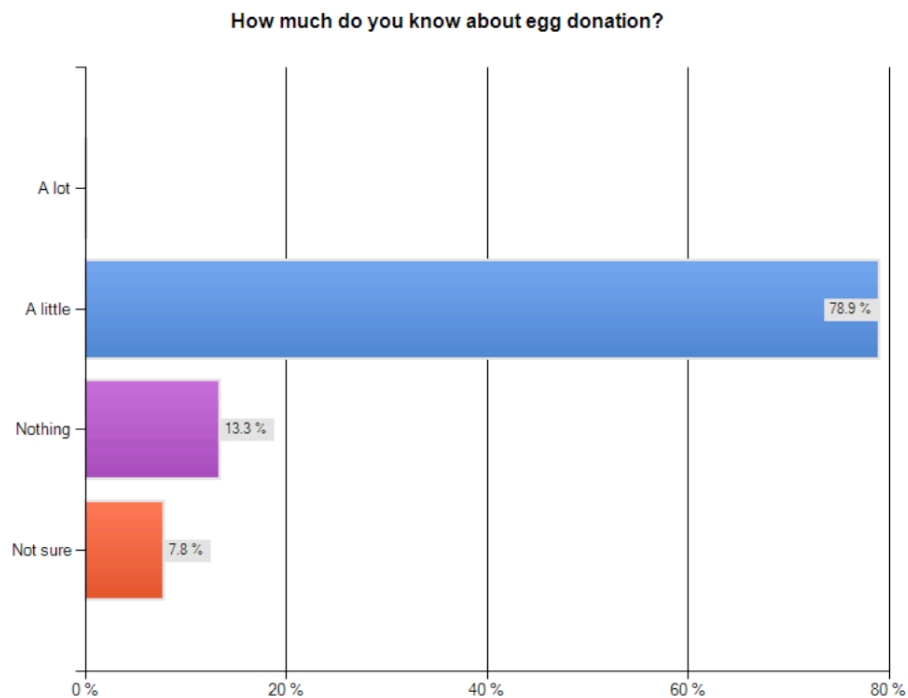
As this sample was drawn from student organizations primarily populated from women, the sample was fairly homogenous. As anticipated, all of the participants in the study are women. This was purposive, since this study focused on the attitudes of women. The study included 90 participants. The average age of participants was 21.7 ( $M = 21.7$ ;  $SD = 1.17$ , Range = 18-28). Based upon these ages; one could speculate that they were primarily undergraduate students. In terms of age, this sample appears to be representative of the average student body. In 2007, the average age of college students at The Ohio State University was estimated at approximately 21, as indicated by The Ohio State University college portrait (OAA, 2007). Other demographic categories such as race and socioeconomic status were not included in this survey. Previous studies have not found race to be related to this topic, and socioeconomic status is not a valid measure for college students (For instance, socioeconomic status of college students is largely dependent on their parents).

### **4.2 Knowledge/Awareness of Egg Donation**

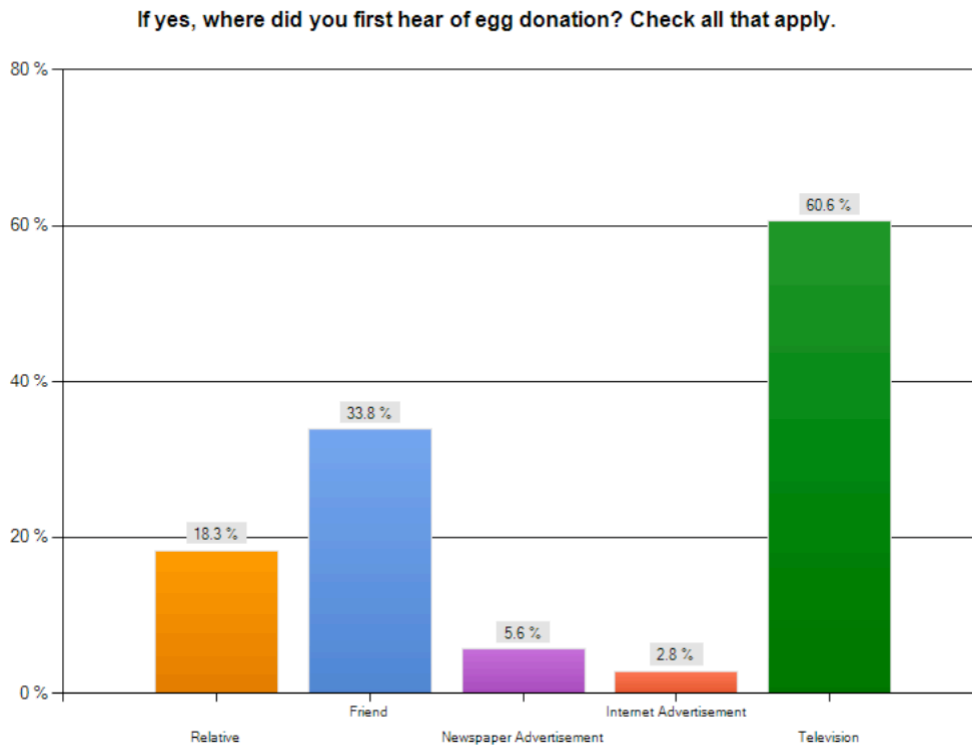
Three items on the survey pertain to participant’s knowledge, awareness, and understanding of egg donation. The first question asks if participants know the meaning of egg donation for

infertility. The overwhelming majority reported that they know what egg donation for infertility means (86.7%). The next question asks participants to gage their level of knowledge on egg donation. Responses included (a lot, a little, nothing, and not sure). As indicated in table (1) the majority of participants reported that they only knew a little about egg donation (78.9%). Participants were then asked (where did you first hear of egg donation). Participants were offered a variety of responses, including, for instance, television, newspaper, and friends. Respondents were also offered the option of writing in their own response. As indicated in table (2), the top primary sources of information about egg donation were television (60.6%), friend (33.8%), and relative (18.3%). Interestingly, only 2.8% first heard of egg donation through the Internet. In terms of open-ended responses, some participants had heard of egg donation in their classes, while one student reported first heading of egg donation through an ad at a college football game.

**Table 1**



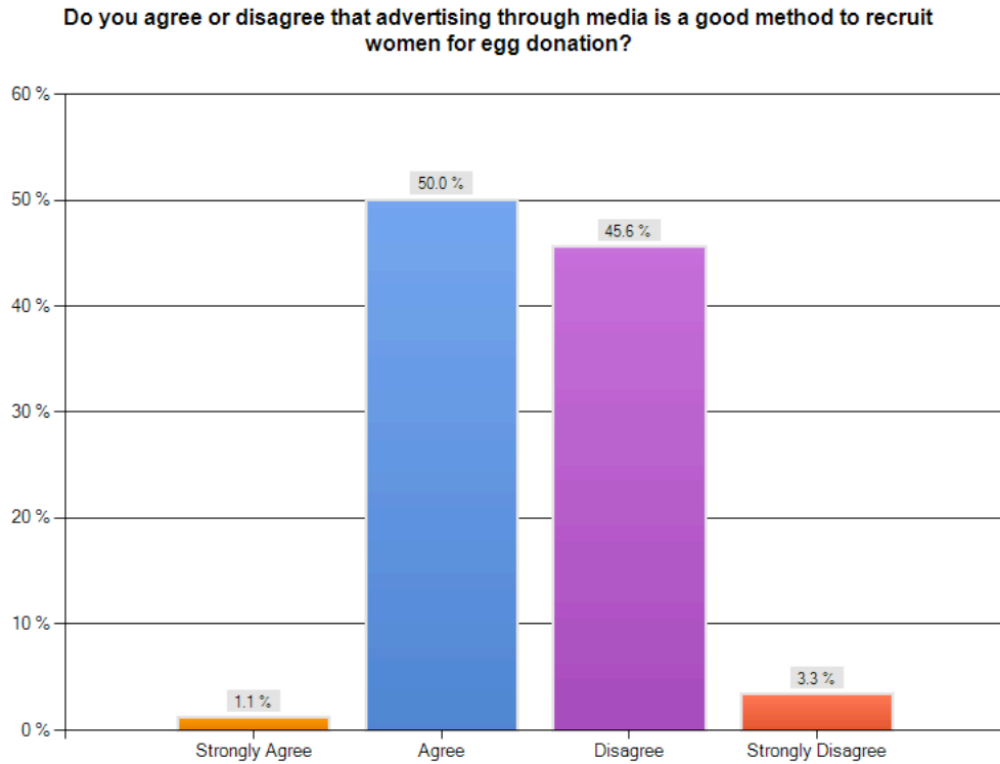
**Table 2**



### **4.3 Attitude toward Recruitment through Media**

One item on the survey inquired about participant's attitude toward advertising for egg donation through the media. The question asks if the participants believe that advertising through media is a good way to recruit women for egg donation. The responses included (strongly agree, agree, disagree, and strongly disagree). A slight majority agreed that advertising through media is a good way to recruit women (50.0%). As indicated in table (3), the responses were almost evenly distributed.

**Table 3**

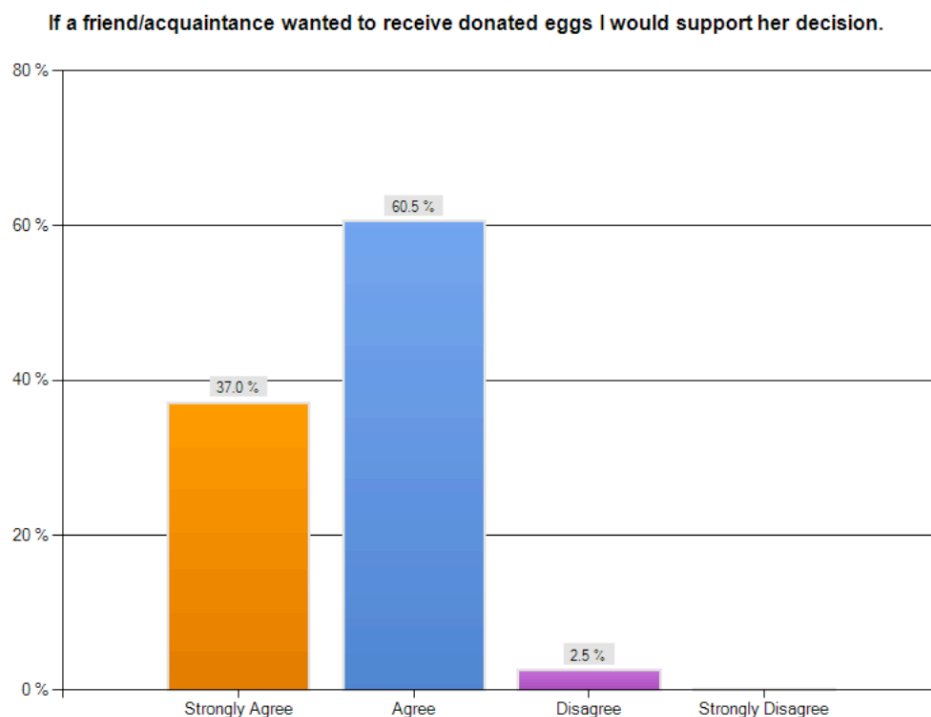


#### **4.4 Personal “Exposure”**

Four items on the survey directly relate to participant’s personal exposure to egg donation. The first question inquired about the participant’s knowledge of her own fertility status. A majority of the participants had no knowledge of their fertility status (64.4%). Few individuals were aware of their fertility status (7%) and others were uncertain if they were knowledgeable about their fertility status (28%). The next question asked if any of the participant’s relatives had egg donation for infertility treatment. The vast majority of the participants did not have a relative who have had egg donation for infertility treatment (94.4%).

The next set of questions was taken from a study done by Skoog Svanberg, Sydsjo, Ekholm Selling, and Lampic (2008). Two of these questions relate more toward personal exposure in relation to attitude toward egg donation. The first question asks: if a friend/acquaintance wanted to donate eggs I would support her decision. Responses included (strongly agree, agree, disagree, and strongly disagree). An overwhelming majority either agreed (60.5%) or strongly agreed (27.2%) that they would support a friend's decision to donate eggs. The next question was formatted the same as the previous question. The question asked, "If a friend/acquaintance wanted to receive donated eggs I would support her decision". An identical percentage of the participants agree (60.5%), and an even larger number of participants strongly agree (37.0%) with the statement. (Table 4)

**Table 4**

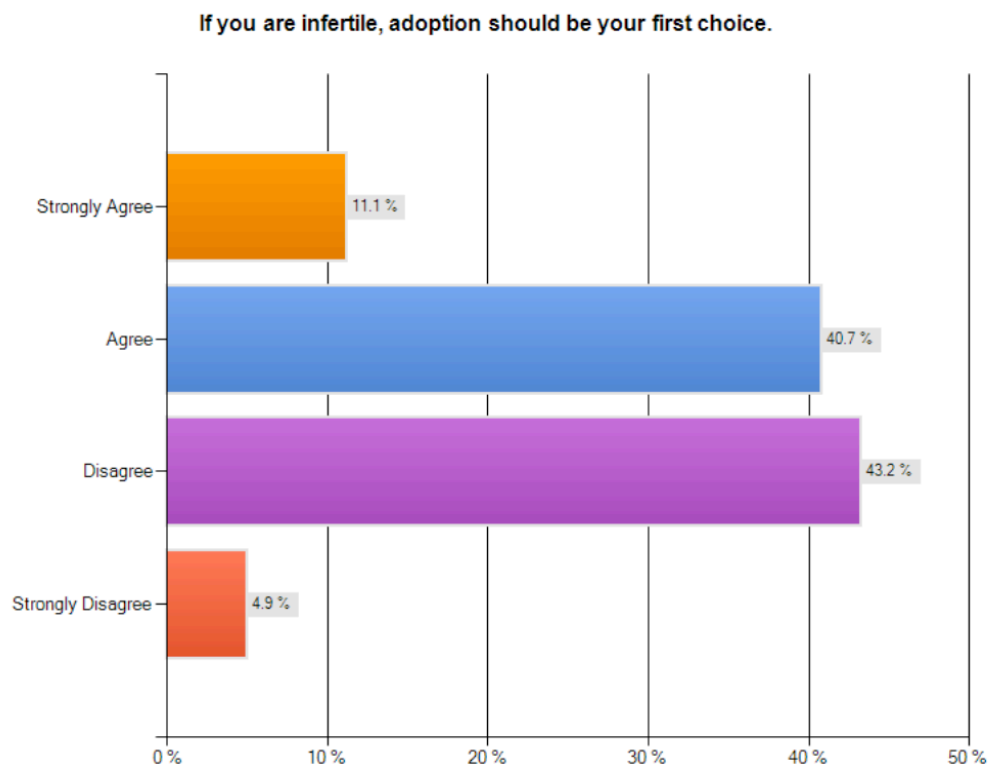


## 4.5 Attitude Toward Egg Donation

There were four items on the survey that directly relate to attitude towards egg donation and variables that may be associated with a more positive or negative attitude toward egg donation.

Three of the questions were formatted as statements instead of actual questions. The first statement read “if you are infertile, adoption should be your first choice”. Responses included (strongly agree, agree, disagree, and strongly disagree). The responses varied in that 43.2% disagree with the statement, 40.7% agree, 11.1% strongly agree, and 4.9% strongly disagree. (Table 5)

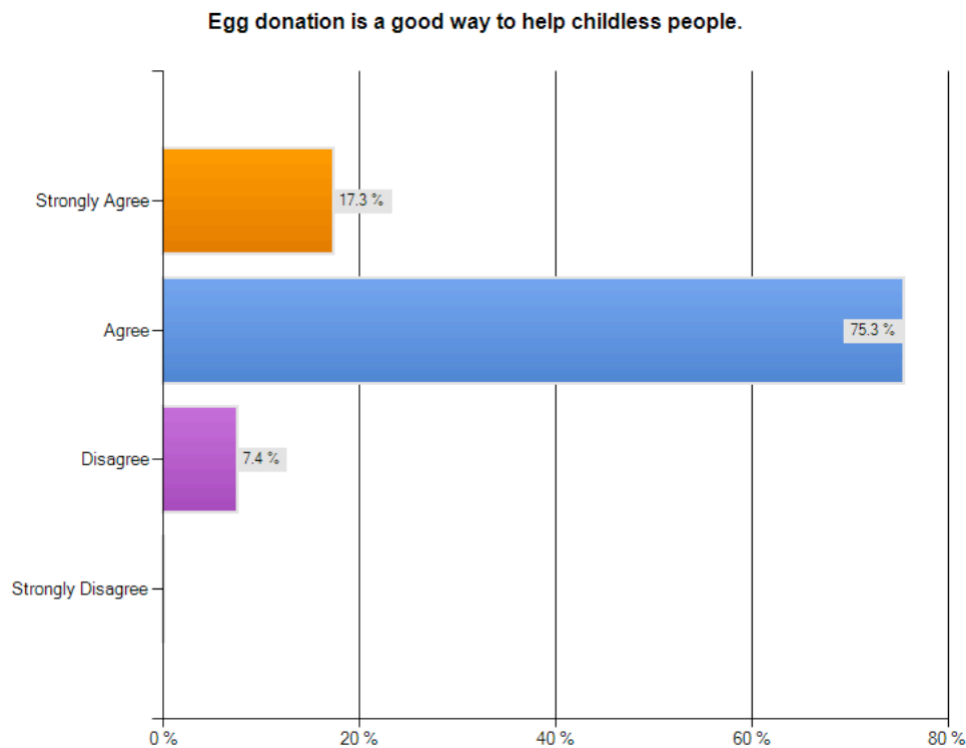
**Table 5**



The next statement read “Egg donation is a good way to help childless people”. As indicated in table (6), a vast majority agreed (75.3%) and strongly agreed (17.3%) with the statement, while

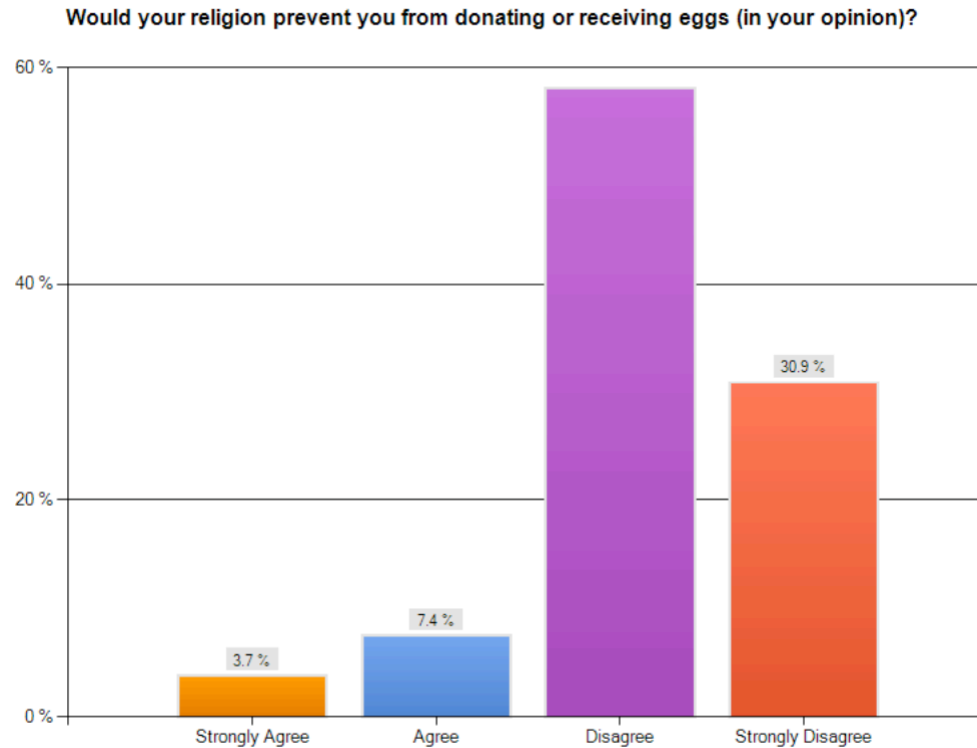
the remaining (7.4%) disagree. The subsequent statement read “If you cannot have children of your own, you should not have any”. The vast majority strongly disagreed (70.4%) and disagreed (28.4%), while one participant (1.2%) agreed.

**Table 6**



The following question asked “Would your religion prevent you from donating or receiving eggs (in your opinion)”. As indicated in table (7), the majority of the participants disagreed (58.0%) and strongly disagreed (30.9%), while a small amount agreed (7.4%) and strongly agreed (3.7%).

**Table 7**



#### **4.6 Qualitative**

The last question on the survey asked, “Are there any additional comments you would like to tell us about in relation to egg donation?” Some of the participants (18) responded with their thoughts. There were four major themes emerging from the egg donation open-ended questions. The first major theme addressed the risks involved with egg donation. Individuals discussed the lack of clarity in student’s opinion that risks are unknown or severe. One participant states, “I believe it is a good thing as long as there is little to no risk.” Another participant states, “I think the idea of egg donation is a good thing, but once you realize the risks involved such as birth



defects, it does not seem to be okay. I am not against egg donation, but I think adoption is a good way to have kids if one is not able to have them.”

The second theme pertained to the positive attitudes associated with egg donation. Participant’s comments focused on the idea that one should go through with egg donation for reasons such as helping those in need and those women who are infertile. One participant states, “I think that egg donation is a great alternative for women who are infertile.” Another participant agrees, “It is a very viable, and in my opinion, positive thing to utilize if a person is not able to have children on their own.”

The third theme discussed the need for more awareness about the issue. Individuals discussed the lack of knowledge surrounding egg donation, the lack of information, and improper advertising without providing knowledge. For example, one participant states, “I don’t know much about egg donation, or the laws and regulations regarding the process. However, this survey made me want to learn more about egg donation, as well as current opinions and views on the issue.” Another student was unsure about the details of the egg donation experience. This student states, “It seems like a cool thing for those interested and provides opportunities for those unable to have children. I do not know that much about it in detail, as in processes, price, or experience.” Other individuals discussed society’s lack of knowledge on egg donation, especially with college students. One student says, “I think this is an interesting controversial topic regarding women that is rarely talked about among college students.” One student goes into detail about the advertisements and states, “I think it is wrong that [egg donation] is advertised at OSU [college] football games”

The fourth theme focused on the need for counseling and social work intervention for spreading awareness about egg donation. One participant states, “My only fear is that women who risk their health for money. I think there should be a lot of counseling around the idea of egg donation, given it is in some way similar to giving up a child for adoption.”

## **Chapter 5: Discussion**

In this chapter, the results of the study are discussed in relation to each of the survey items. The qualitative data will be used to add context to the quantitative findings and to explore areas or issues that were not revealed in the analysis of the quantitative data.

Though an overwhelming majority of participants were familiar with the term ‘egg donation for infertility’, a similar majority responded that they only knew “a little” about egg donation. This is rather alarming, as research indicates that college students may have more simplistic views on egg donation than individuals who are older (Bergh, Lampic, Lundkvist & Svanberg, 2003).

This finding illustrates a lack of knowledge and understanding about the risks and/or benefits of the egg donation process by undergraduate college women, and an overwhelming percentage of positive attitudes toward egg donation.

This finding also introduces an important issue of informed decision-making. A study done in 2001 focused on the importance of informed decision-making among college students being recruited for egg donation due to the shortage of oocyte donors. The researcher hypothesized that in order to alleviate the shortage of donors, these programs may minimize or misrepresent risks when recruiting college donors (Gurmankin, 2001). The researcher investigated these programs in a preliminary phone call. The majority of the programs provided incomplete or inaccurate risk information (Gurmankin, 2001). Disturbingly, close to 90% of the participants in this research knew little or nothing about egg donation. The individuals in this study, if given inaccurate information through the previous study, would have not made an informed-decision due to their lack of knowledge on the topic.

Most of the research focusing on awareness and knowledge of egg donation found that the majority of individuals first heard about egg donation through the media. As previously mentioned, college women are targeted primarily through ads in the college newspaper. In one specific research, a quarter of donor women noted that their first source of information on egg donation was a college or university newspaper (Kenney & McGowan, 2008). Interestingly, only 5.6% of participants in the present study indicated the college or university newspaper to be the first source of information where they learned of egg donation; however, some participants first heard of egg donation in class and through an advertisement at The Ohio State University football game. In future research, it would be interesting to learn when the majority of participants first heard of egg donation. In addition, expanding on where participants first heard of the egg donation process versus where they first saw an ad about being a donor could be helpful. Those questions may aid in better understanding individual's knowledge and attitude. Participants may have a more positive attitude, and more knowledge about egg donation, if they have first read of egg donation in a lengthy magazine article, rather than an ad recruiting egg donors in a college newspaper.

In order to understand whether or not participants believe that advertising through the media is a good way to advertise and recruit egg donors, a question was included on participant's attitude toward advertisement through media. Participants were almost equally distributed between in terms of agreement and disagreement with the statement. It is difficult to interpret this finding and caution should be used in reading too much into this result. The reason for this may be that the word 'good' has a number of unique meanings. Participants may have interpreted the word

‘good’ as a moral, ethical, proper, or even an effective way to recruit women. All of those interpretations would result in different responses to the question. If participants did not think that advertising through media was a ‘good’ way to recruit egg donors, what would be the reasons that they would think that? Participants may believe that egg donation is a private issue and should be handled in a more discreet way, or may even think that it is unethical.

In addition, participants may have interpreted the word ‘media’ in various ways. Some participants may be interpreting the word ‘media’ as an advertisement on the big screen at a football game, and some participants may be viewing ‘media’ as a CNN article on the Internet. Those interpretations would, again, result in varied responses.

Currently, young adults rely on the Internet to receive most of their information. More and more information is learned through the Internet, and not magazines. The Internet may be a convenient way to find information, but not all of the content is credible or of high quality. In this research, while only 2.8% of the participants first heard of egg donation through the Internet, in medical decision-making, this is still especially important to consider. Although many of the participants may have not first heard of egg donation through the Internet, they may have gone to the Internet at a later time to research egg donation. Again, this touches on the subject of informed-decision making.

Previous research has indicated that if participants are knowledgeable about their fertility status, especially if they are fertile, they may be more likely to have a positive or negative attitude on egg donation (Purewal, van den Akker, 2009). As such a small percentage were knowledgeable about their fertility status in this study, it is difficult to conclude whether or not participant’s

fertility status affected their attitude or awareness toward egg donation. It would be safe to assume that most college women are unsure of their fertility status. Young women most likely consider themselves to be fertile unless proven otherwise. However, of those individuals who were knowledgeable about their fertility status, they all had a positive attitude toward egg donation and would positively support their friends donating and receiving eggs. Again, it is difficult to conclude if the positive attitudes have any correlation to whether or not those individuals are knowledgeable about their fertility status.

In this study, 5.6% of the participants have had a relative who have had egg donation treatment. Of those 5.6%, they all agree that they would support a friend who wanted to donate or receive eggs. One of the participants stated in the qualitative section, “I think the idea of egg donation is a good thing, but once you realize the risks involved such as birth defects, it does not seem to be ok. I am not against egg donation, but I think adoption is a good way to have kids if one is not able to have them.” This participant may have had a relative in which the procedure resulted in a birth defect, and therefore, has less of a positive attitude toward egg donation. Individuals who have had a personal experience with egg donation through a relative or friend may base their attitude toward egg donation on their relative or friend’s experience.

Through integrating the findings regarding the attitudes of egg donation, one could conclude that the general attitude toward egg donation is positive in this sample. Studies have revealed that a significant proportion of women from the general population were willing to donate their eggs (Purewal & O.B.A van den Akker, 2009a). This research displays similar results. A vast majority of participants would strongly support their friends in donating eggs or receiving

donated eggs. More of the participants would strongly support a friend's decision to receive donated eggs rather than donate the eggs. This displays a more positive attitude toward IVF, in general. A very interesting finding is that the vast majority of individuals believe that egg donation is a good way to help childless people, yet almost the same percentage admitted that they know very little about egg donation. This makes the research very interesting in that these college women who know so little about egg donation are still apt to believe that egg donation is a positive way to help those individuals.

Overall, the vast majority of participants believed that infertility should not preclude individuals from seeking children through alternative means (e.g., IVF, adoption). In fact, only one participant believed that if you cannot have children of your own, you should not have any. The reason for this support for IVF may have something to do with the fact that younger generations have grown up with IVF and other fertility choices. If the researcher asked the same questions to a group of 75 year-old women, the results may not be the same. It is important to note that although participants have little knowledge about the specifics of egg donation, they are more accustomed to surrogacy, IVF, and other forms of infertility treatment than older generations.

Research has indicated in some studies that religion can affect attitudes toward egg donation (Purewal & van den Akker, 2009a). In 2009, Ohio was ranked as the 25<sup>th</sup> most religious state (Pew Research Center Forum, 2009). Only 55% of Ohioans say that religion is important in their life, which is below the national average of 65% (Pew Center Forum, 2009). The vast majority of participants in the current study did not believe that their religion played a part in whether or not they would donate eggs. This could be that many of the participants are unaware of their

religion's standpoint on egg donation. One participant wrote, "I do not know Catholicism's stance on egg donation". In addition, since Ohio is not a particularly religious state, many of the participants may not practice a religion or even care how their religion views egg donation. In future studies, it would be interesting to ask more in depth questions about individual's religious affiliations and level of religious participation in regard to attitude toward egg donation.

It was very interesting to see that participant's who commented in the qualitative section generally had a positive attitude toward egg donation, yet were unaware of the risks and felt as though there is a lack of awareness among college students. One participant answered, "I think it is a very noble thing to be able to donate and something that more people should look into for those who cannot conceive children of their own." However, this participant also answered that she knows little about egg donation. Another participant wrote, "It seems like a cool thing for those interested and provides opportunities for those unable to have children. I do not know that much about it in detail, as in processes, price, or experience." If this individual, lacking the knowledge to make an informed-decision, wanted to donate eggs would she receive the correct information regarding risks and benefits of the procedure? This is an important concept to address at egg donation clinics worldwide.



## **Chapter 6: Conclusion**

This research study explored the awareness and attitudes of college women regarding egg donation. The researcher reviewed extant literature on egg donation and developed and administered an online survey of closed-ended and open-ended questions. The results indicated that there was a general sense of support for egg donation, yet the participants were not well-informed on the process and risks of egg donation. This is an important study as it raises questions about recruiting college-aged women – a potentially at-risk population due to financial insecurity and lack of long-range planning regarding their fertility. College women are highly targeted by egg donation clinics and it is imperative that these women are being recruited ethically and informed of the risks before proceeding with the egg donation process. Social workers can make good use of this research in understanding that these college women need to be given appropriate information in recruitment ads, phone conversations, and meetings. Social workers must advocate for college women. Even more importantly, there needs to be a social worker present in clinics so that these young women are able to discuss the possible choice of egg donation with someone who will allow them to look at the bigger picture.

In looking toward the future, there is a definite need for future studies on the recruitment process of egg donation clinics. Specifically, there should be more longitudinal studies that focus on college women's attitudes once they have learned about the risks of egg donation and how that affects their attitude about egg donation. In addition, researchers could look at feelings of regret in egg donors post-procedure or years following the procedure. The current study also demonstrates that there is a need for education on egg donation, particularly among college students. Egg donation is not without risks and women should be made fully aware of such risks

before undergoing such procedures. Given the monetary compensation that is offered to egg donors, questions regarding the ethics of soliciting financially insecure college-aged women also arise. Social workers could play a key role in both understanding attitudes toward egg donation and educating women on this procedure. As a profession, social work also has a responsibility to protect and advocate for this often overlooked “at-risk” population.

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